Set-ups must be shown where applicable.

Hint: Work the problems assigned in the text first, many of these problems are similar to the homework problems. Remember: Answers to the problems in the text are in back of the text book.

1) Perform the following conversions:
   [Remember sig. figs. must be correct!!]
   a. $4.52 \times 10^{-6}$ yards to cm
      Answer _____________________
   b. $19.5$ µsec to csec
      Answer _____________________
   c. $6001$ cm$^3$ to cubic millimeters
      Answer _____________________
   d. $8.2 \times 10^{12}$ nm to miles
      Answer _____________________
   e. $745.6$ mi/hour to in/sec
      Answer _____________________
   f. $55$ kL to mL
      Answer _____________________
2] Liquid sodium metal has a density of 0.93 g/cm³. How many pounds of liquid sodium are needed to fill a container whose capacity is 15.0 L?

Answer _________________

3] A typical ice cube from the refrigerator measures 4.0 cm x 3.5 cm x 3.3 cm and weighs 42.4 grams. Calculate the density of the ice cube.

Answer _________________

4] A "track star" runs the 100.0 yd dash in 10.27 sec. What would be his time, in seconds, for a 100.0 m run if he ran it at the same rate?

Answer _________________

5] 92.53 g of lead (density_{lead} = 11.34 g/cm³) occupies the same volume as 64.2 g of iron
   a. What is that volume?

Answer _________________

   b. What is the density of iron?

Answer _________________

   c. Would one Kg of lead occupy more or less volume than one Kg of iron?

Answer _________________

6] Convert 99.0°C to Kelvin

Answer _________________